



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

respectively metamorphosed silicious and argillaceous sediments. Locally the base of the series is conglomeratic. They are divided into an upper and a lower silicious zone.

Torridonian strata occupy most of the unmoved area east of the fault line. The beds are chiefly coarse, chocolate and red arkoses and pebbly grits which carry occasional layers of shale and flagstone.

Unconformable upon the Torridon beds lie the Cambrian. The Cambrian is based with a gritty quartzite; the upper Furoid limestones carry an *Olenellus* fauna.

An apparent metamorphic transition of Torridon into Moine schists is reported, but no suggestion is made as to the age of the Moine schists relative to the Cambrian and Torridonian.

The petrology of the district is marked by unusual lamprophyre dikes of minette and monchiquite relationships.

The last twenty pages are given to a discussion of Pleistocene glaciation and glacial deposits.

T. T. Q.

---

*The Archean Geology of Rainy Lake Re-studied.* By ANDREW C. LAWSON. Geol. Surv. Canada, Memoir No. 40, 1913. Pp. 115, pls. 9, map 1.

Field study confirms the author's earlier opinion (of 1887) that the Couthiching sedimentary series is older than the Keewatin igneous rocks. He found that there were two widely separated periods of plutonic activity; to the earlier he proposes to confine the name Laurentian, and for the younger he introduces the term Algoman.

Lawson's classification of Archean formations from the top downward is as follows:

1. Eparchean interval—peneplanation.
2. Algoman. Vast batholiths of granite- and syenite-gneisses.
3. Seine series (Upper Huronian, Middle Huronian of some authors). Conglomerates, quartzites and slates.
4. Uplift, deformation and erosion, followed by depression.
5. Steep rock series (Lower Huronian). Sediments and volcanics. Several hundred feet of fossiliferous limestones.
6. Erosion which extensively exposed the granite batholiths.
7. Laurentian. Granites and granite-gneiss.
8. Keewatin. Chiefly volcanic rocks with intercalated sedimentary beds. Certain intrusive gabbros.
9. Couthiching. Sedimentary strata. Mica schist and paragneiss.

Only two divisions of the Huronian are admitted, and the Animikie and Keweenawan are not grouped with the Archean but with the Paleozoics. However, these two divisions are associated under the higher name Algonkian. He also proposes the name Ontarian to cover the closely associated Keewatin and Coutchiching.

The major part of the report is given to a detailed discussion and description of the criteria whereby the Coutchiching is represented to be older than the Keewatin. The arguments presented are based upon structural relations, and actual contacts at which the Keewatin lies upon the Coutchiching.

The conglomerate which Lawson formerly thought part of the Coutchiching, and which others used to show that the Coutchiching is younger than the Keewatin, Lawson now distinguishes as part of another, very much younger, group, the Seine series. The stratigraphical position of this series is not clearly established, and therefore the upper part of his Archean classification is not much more than tentative.

T. T. Q.

---

*The Pre-Cambrian Geology of Southeastern Ontario.* By WILLET G. MILLER and CYRIL W. KNIGHT. Report of the Bureau of Mines, Vol. XXII, Part II, 1914. Pp. 151, illustrations 67, portraits 4, maps 13.

The chief results of the work were to show that: (1) the sedimentary rocks have a basement of Keewatin green schists and ellipsoidal lavas; (2) the Grenville series were deposited upon the Keewatin lavas, but no erosional interval has been proved; (3) granites of two ages have been recognized; the older one is gneissoid and intrudes the Keewatin and Grenville rocks, the younger granite intrudes all the local pre-Cambrian rocks; (4) most of the metamorphosed blue limestones are classed with the Grenville series, but the conglomerates and some other sediments are younger and differentiated as the Hastings series; (5) post-Hastings igneous rocks are gabbro, basalt, and tuffs, and the Algonman granite which is later than the gabbro group.

Because the great Grenville limestone series (94,000 feet thick—Adams) was pre-Laurentian, the authors think there is no special significance to be attached to the Laurentian as an epoch-marking time. They drop the terms Algonkian and Archean, and Proterozoic and Archeozoic. They do not reach definite conclusions about the correlation of the limestone conglomerate and other formations in the Madoc area.